

AMENDMENTS TO THE CLAIMS

In the claims, please cancel claim 21 and amend claim 1 as follows:

1. (currently amended) A complex for delivering a nucleic acid to a mammalian cell comprising: said nucleic acid reversibly compacted by a polymer, said polymer comprising more than two labile disulfide bonded monomers, to form said complex wherein said polymer contains labile disulfide monomers ~~selected from the group consisting of a~~ containing disulfide bonds constructed from thiols in which at least one of the constituent thiols has a lower thiol pKa than glutathione thiol pKa when measured under the same conditions.
2. (canceled)
3. (previously presented) The polymer of claim 1 wherein the polymer is selected from the group consisting of a polycation, a polyanion, a neutral polymer and an amphipathic polymer.
- 4.-5. (canceled)
6. (previously presented) The polymer of claim 1 wherein the polymer contains a ligand.
7. (previously presented) A physiologically labile polymer for condensing nucleic acid comprising: three or more monomers linked via labile disulfide bonds that are cleavable by reduced glutathione more rapidly than the disulfide bond of oxidized glutathione when measured under the same conditions, wherein said polymer condenses said nucleic acid more strongly than said monomers.
8. (previously presented) The polymer of claim 7 wherein said labile disulfide bonds are constructed from thiols in which at least one of the constituent thiols has a lower thiol pKa than glutathione thiol pKa when measured under the same conditions.
9. (canceled)
10. (previously presented) The polymer of claim 7 wherein the polymer is selected from the group consisting of a polycation, a polyanion, a neutral polymer, and an amphipathic polymer.
11. (previously presented) The polymer of claim 7 wherein the polymer contains a ligand.
- 12-18. (canceled)
19. (previously presented) The polymer of claim 7 wherein said labile disulfide bonds are cleaved by intramolecular attack from a free thiol.
20. (previously presented) The complex of claim 1 wherein said complex is less than 100 nm in size.
21. (canceled)

We Claim:

1. A process for delivering a compound having a labile disulfide bond into a mammal, comprising:
 - a) forming the compound having a disulfide bond selected from the group consisting of (i) a disulfide bond that is cleaved more rapidly than oxidized glutathione, and (ii) a disulfide bond constructed from thiols in which one of the constituent thiols has a lower pKa than glutathione, and (iii) a disulfide bond that is activated by intramolecular attack from a free thiol;
 - b) attaching a transduction signal to the compound;
 - c) inserting the compound into the mammal; and,
 - d) releasing the bond between the sulfur atoms in the disulfide.
2. The process of claim 1 wherein the transduction signal consists essentially of SEQ ID 1.
3. The process of claim 1 wherein the transduction signal consists of VP22.
4. The process of claim 1 wherein the transduction signal consists of ANTP.
5. The process of claim 1 wherein the transduction signal consists of a peptide containing a cationic residues.
6. The process of claim 1 wherein the transduction signal consists of a polymer containing a plurality of guanidinium groups.